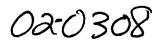
City of Portland, M	Taine - Buil	ding or Use	Permi	it Annlicati	on Pe	mit No.	III 1550	1F.h	CBL:	
389 Congress Street, (						02-0308 AD		72	047 C0	35001
Location of Construction:		Owner Name:		<del></del>	Owne	· Add ess:	11. Z 4 7 ( 1)	"C	Phone:	
681 Congress St		Weston Assoc	iates			0171/0	COORT		828-1274	,
Business Name:		Contractor Name	:		Contr	actor Adires	PUKI	LANU	Phone	
		Knowles Indus	strial Se	ervices	295	New Portlan	d Road Gorl	nam	20785419	900
Lessee/Buyer's Name		Phone:			1	t Type: erations - Mu	lti Family			Zone: '6
Past Use:		Proposed Use:		<del>-</del>		it Fee:	Cost of Wor	k:	CEO District:	70 70
Residential Complex		Residential Co	omplex			\$226.00	\$28,5		2	1 1-31
-			•		FIRE	DEPT:	Approved	INSPEC	TION	1
		}					Denied	Use Gro	oup: <b>122</b> 2	_Type: <b>/~</b> Z_
		İ			}	L	_ Denied	<b>[</b>	D	2,000
		ļ						4	BOLA M	44
Proposed Project Description							•		oup: <b>EL</b> 2 BOCA 19 re: Min	
Remove & Replace Exi	sting 1,100sq	ft Brick Plaza D	eck		Signa	ture:	fym?	Signatur	re: Mhs	
					PEDE	STRIAN ACT	IVITIES DIST	TRICT (P	A.D.)	
					Action	n: Appro	ved 🗌 App	proved w/0	Conditions [	Denied
D			т		Signa				Date:	
Permit Taken By: mjn		oplied For: 1/2002				Zoning	g Approva	al		
1. This permit applica	tion does not	preclude the	Spe	cial Zone or Re	views	Zoni	ng Appeal		Historic Pres	ervation
Applicant(s) from r Federal Rules.				noreland	, 1	☐ Variano	e		Not in Distric	ct or Landmark
2. Building permits do septic or electrical		olumbing,	□w	Conditions on the conditions of the conditions on the conditions on the conditions of the conditions on the conditions on the conditions on the conditions on the conditions of the conditions on the conditions of the conditions of the conditions on the conditions of the conditions o	JA11	☐ Miscell	aneous		Does Not Rec	quire Review
3. Building permits ar within six (6) month	e void if work		☐ Fl	ood Zone	intro		onal Use		Requires Rev	riew
False information n permit and stop all	•	a building	☐ Su	ıbdivision		Interpre	tation		Approved	
			☐ Si	te Plan			ed		Approved w/9	Conditions
			Maj [	Minor M	МП	Denied			Denied	edilistor
			Dan	> 411	7/62	Date:		Da	ite: Leproy	
								Î	MA 4/	nor
				CERTIFICAT						
I hereby certify that I am I have been authorized by jurisdiction. In addition, shall have the authority to such permit.	y the owner to , if a permit for	make this appli work described	cation a	as his authoriz application is	ed agent issued,	t and I agree I certify that	to conform the code off	to all ap	plicable laws outhorized reproduced	of this esentative
SIGNATURE OF APPLICAN	TT			ADDRE	ESS		DATE		PHO	NE
RESPONSIBLE PERSON IN	CHARGE OF W	ORK, TITLE					DATE		PHO	NE.
							PAID		1110	=



## All Purpose Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

	81 Congress ST.			
Location/Address of Construction: Lows	fellow commons, 206 states	Heat, Portland ME 04101		
Total Square Footage of Proposed Structo //OO SF REVOLATION OF PA	, .			
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# 47 C 35	Owner: Weston Associates Yo Jim Grimes	Telephone: 828-12.74		
Lessee/Buyer's Name (If Applicable)  Applicant name, address & Cost Of Work: \$ 28,510.00  KNOWLES IMPUSTRIAL  245 New PORTLAND RD.  GORHAM, ME 04038  Fee: \$ 226.00				
Current use: RESIDENTIAL COMPLEX  If the location is currently vacant, what was prior use:  Approximately how long has it been vacant:				
Proposed use: SAME Project description: Removal AND REPLACEMENT EXISTING BRICK PLAZA DECK AND WATCH PROOFING OF SAME AREA PER ATTACHED SPECIFICATIONS.				
Contractor's name, address & telephone: Knowles lawstrid Services 207-954-1900 295 New Portland Rd. Gornan, ME 04038 Who should we contact when the permit is ready: TIM RICH				
Mailing address: KNOWLES IN DUSTRIAL SERVICES  295 NEW PORTLAND ROAD  GORHAM, ME 04038				
We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up.  PHONE: 207-854-1900				
F THE REAL HOUSE IN COMMENTS AND ADDRESS OF THE PARTY OF		······································		

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APROVE THIS PERMIT.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This is NOT a permit, you may not commence ANY work until the permit is issued.

If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall

#### CITY OF PORTLAND, MAINE

#### HISTORIC PRESERVATION COMMITTEE

June 7, 2001

Jim Grimes
Weston Associates
206 State Street
Portland, ME 04101

CRITERIUM MOONEY ENGINEERS

Edward Hobler, Chair Rick Romano, Vice Chair Susan Wroth Camillo Breggia Robert Parker Steve Sewall Cordelia Pirman

Re: 206 State Street-Plaza resurfacing

Dear Mr. Grimes:

On June 6, 2001, the City of Portland's Historic Preservation Committee voted 4-1 (Breggia opposed, Pitman and Romano absent) to approve your application for a Certificate of Appropriateness. Approval is for the resurfacing of the brick plaza at 206 State Street with a colored asphalt surface featuring a paver-like imprint.

Note that the Committee's approval was made subject to the following conditions:

- The asphalt is to feature a brick red color, and the imprint is to be the brick, running-bond pattern;
- A four to six-inch wide band of granite must be added at the end of the brick ramp where it meets the
  plaza in order to create a transition from the brick to the colored asphalt surface.

All improvements shall be carried out as shown on the submitted plans and specifications, except as to comply with the conditions above. Changes to the approved plans and specifications and any additional work that may be undertaken must be reviewed and approved by this office prior to construction, alteration, or demolition. If, during the course of completing the approved work, conditions are encountered which prevent completing the approved work, or which require additional or alternative work, you must apply for and receive a Certificate of Appropriateness or Non-Applicability PRIOR to undertaking additional or alternative work.

Please note that you must notify staff upon completion of the project to ensure compliance with the approved application. (Contact Jeffrey Harris, Preservation Compliance Coordinator, at 874-8728.)

This Certificate is granted upon condition that the work authorized herein is commenced within twelve (12) months after the date is issuance. If the work authorized by this Certificate is not commenced within twelve (12) months after the date of issuance or if such work is suspended in significant part for a period of one year after the time the work is commenced, such Certificate shall expire and be of no further effect; provided that, for cause, one or more extensions of time for periods not exceeding ninety (90) days each may be allowed in writing by the Department.

Sincerely,

Edward Hobler, Chair

Historic Preservation Committee

cc:

Approval Letter File

Helen Watts, Criterium-Mooney Engineers



## City of Portland, Maine 389 Congress St., Res. 315 Portland, ME 04101

#### **ACCESSIBILITY CERTIFICATE**

TO:	Inspector of Buildings City of Portland, Maine Department of Planning & Urban Development Division of Housing & Community Services				
FROM:	Criterium - Mooney	Criterium - Mooney Engineers			
RE:	Certificate of Design, HANDICAP ACCESSIBILITY				
DATE:	March 25, 2002	March 25, 2002			
•	and/or specifications covering ject #00-103 Longfello				
Waterpro	oofing of Plaza Decks a	nd Associated Repairs			
206 Stat	te Street, Portland				
engineer/arcl		ndersigned, a Maine registered lations as adopted by the State of Maine on Signature Maine Charle			
(SEAL)	HEUNIN WEST	Title Project Engineer  Firm Criterium - Mooney Engineers  Address 22 Monument Sq., Ste. 300  Portland, MF 04101			



### CITY OF PORTLAND MAINE

389 Cougress St., Rm 315 Portland, ME 94101 Tel - 207-874-8704 Fax - 207-874-8716

TO:

Inspector of Buildings City of Portland, Maine Planning & Urban Development Division of Housing & Community Services

FROM DESIGNER:	Criterium - Mooney Engineers
	22 Monument Sq., Ste. 300, Fortland, ME 04101
DATÉ:	March 25, 2002
	ct #00-103, Waterproofing of Plaza decks & associated repairs
	206 State Street, Portland
THE BOCA NA	ATIONAL BUILDING CODE/1999 Fourteenth EDITION project was designed according to the building code criteria listed below:
Building Code and Year	1999 BOCA Use Group Classification(s) R2
Type of Construction 1 o	r 2 Bldg. Height 4-story Bldg. Sq. Footage 44,040
Seismic Zone Av = 0	.10 Group Class I
Roof Snow Load Per Sq. Pt	42 Dead Load Per Sq. Ft. 15
Basic Wind Speed (mph)	90 Effective Velocity Pressure Per Sq. Ft.
Floor Live Load Per Sq. Ft_	40
Structure has full sprinklet sys Sprinklet & Alum systems m Portland Fire Department,	stem? Yes X No Alarm System? Yes X No No Number of the Standards with approval from the
structure being considered t	unlimited area building: Yes_No
If mixed use, what subsection	of 313 is being considered
List Occupant loading for each	h room or space, designed into this Project. N/A
rsh 6/07/2K	(Designers Stamp & Signature)





#### CITY OF PORTLAND BUILDING CODE CERTIFICATE 389 Congress St., Rm 315 Portland, ME 04101

TO:

Inspector of Buildings City of Portland, Maine Department of Planning & Urban Development Division of Housing & Community Service

FROM:

Criterium - Mooney Engineers

RE:

Certificate of Design

DATE:

March 25, 2002

These plans and/or specifications covering construction work on:

CME Project #00-103 Longfellow Commons -

206 State Street, Portland

Have been designed and drawn up by the undersigned, a Maine registered architect/engineer according to the BOCA National Building Code/1999 Fourteenth

Edition, and local amendments.

(SEAL)

Signature

Project Engineer

Criterium - Mooney Engineers

22 Monument Sq., Suite 300

Portland, ME 04101

As per Maine State Law:

\$50,000.00 or more in new construction, repair, expansion, addition, or modification for Building or Structures, shall be prepared by a registered design. Professional.

PSH 6/20/2k

## PROJECT MANUAL AND SPECIFICATIONS

# WATERPROOFING OF PLAZA DECKS AND ASSOCIATED DRAINAGE IMPROVEMENTS AT LONGFELLOW COMMONS PORTLAND, MAINE

#### Prepared for:

Weston Associates c/o Jim Grimes Longfellow Commons 206 State Street Portland, ME 04101

Prepared by:

Criterium - Mooney Engineers 22 Monument Square, Suite 300 Portland, ME 04101 (207) 775-1969

CME Project No. 00-103

September 15, 2000

Engineers: Jeffrey R. Nadeau, P.E. John P. Berggren



#### TABLE OF CONTENTS

Division 0 - Contract	Requirements
00100	Instructions to Bidders
00200	Subcontractor/Material Listing
00300	Bid Form
00350	Bid Bond
00400	Substitution Listing
00500	Form of Agreement
00700	Performance and Payment Bond
Division 1 - General	Requirements
01000	General Conditions
01100	Summary of Work

Submittals and Substitutions

Product Requirements

Construction Facilities and Temporary Controls

## Division 2 - Site

01330

01500

01600

01710

02070 Selective Demolition 02511 Hot-Mix Asphalt Paving

Cleaning

#### Division 3 - Concrete

03310 Concrete Repairs

#### Division 4 - Masonry

04000 Brick Removal and Replacement

#### Division 7 - Thermal and Moisture Protection

07111 Waterproofing Membrane System 07900 Joint Sealants

07920 Epoxy Grout Injection

#### Division 15 - Mechanical

15440 Floor Drain Installation

#### Appendix A - Contract Drawings

A-1 Elevated Deck Plan A-2 Ground Floor Plan A-3 Details

#### END OF TABLE OF CONTENTS

j:\data\wpdocs\mstrspec\jobs\00103\table.spc

#### 00100

#### INSTRUCTIONS TO BIDDERS

1. The Work shall include, but is not limited to:

Removal of the existing and installation of new waterproofing membrane system of approximately 1100 SF on the top side of the elevated cast-in-place concrete deck along with associated drainage upgrades.

#### 2. SECURING DOCUMENTS

Additional copies of the Contract Documents may be obtained from:

Criterium - Mooney Engineers 22 Monument Square, Suite 300 Portland, ME 04101

Attn: John P. Berggren

Phone: (207) 775-1969 Fax: (207) 775-4115

#### 3. BID FORM

In order to receive consideration, make bid in strict accordance with the following:

- A. Make bid upon the form provided, properly signed, and with all items filled out. Do not change the wording of the Bid Form, and do not add words to the Bid Form. Unauthorized conditions, limitations, or provisions attached to the bid may be cause for rejection of the bid. If alterations by erasure or interlineation are made for any reasons, explain over such erasure or interlineation with a signed statement from the bidder.
- B. Do not "fax" bid. No bid received after the time fixed for receiving them will be considered. Late bids will be returned to the bidder unopened.

C. Address bid to Criterium - Mooney Engineers and deliver to the address indicated below on or before the day and hour set for receiving the bids. Enclose each bid in a sealed envelope bearing the title of the Work (Longfellow Commons - Waterproofing Project) and the name of the bidder. Submit only the original signed copy of the bid. It is the sole responsibility of the bidder to see that his bid is received on time.

Deliver bid to:

Criterium - Mooney Engineers 22 Monument Square, Suite 300

Portland, ME 04101

on or before Tuesday, September 26, 2000 at 2:00 p.m.

- D. A mandatory pre-bid meeting will be held at the job site on Friday, September 15, 2000 at 2:00 p.m. and will commence on the patio of Longfellow Commons, 206 State Street, Portland, Maine (corner of State Street and Congress Street).
- E. Include within the sealed bid copies of all documents as required by the Bid Form. Incomplete bids may not be considered.

#### 4. EXAMINATION OF DOCUMENTS AND SITE OF WORK

- A. It is the responsibility of each bidder before submitting a bid, to (1) examine the Contract Documents thoroughly, (2) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work, (3) consider federal, state and local laws and regulations that may affect cost, progress, performance or furnishing of the Work, (4) study and carefully correlate bidder's observations with the Contract Documents, and (5) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents.
- B. Bidders shall be responsible for obtaining permission and all necessary permits and insurance for access to the project site. Contractor shall schedule pre-bid site visits with Jim Grimes, the property manager of Longfellow Commons (Phone 828-1274; Fax 828-0627).
- C. The submission of a bid will constitute an incontrovertible representation by bidder that without exception the bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

#### 5. PROOF OF COMPETENCY OF BIDDER

A Contractor shall be required to furnish evidence satisfactory to the Owner that he and his proposed Subcontractors have sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory manner. A list of five projects completed of similar scope and names and telephone numbers of references shall be included with the Bid Form.

#### 6. MODIFICATION AND WITHDRAWAL OF BIDS

A bidder may modify and/or withdraw his bid, either personally or by written request, at any time <u>prior</u> to the bid due date.

#### 7. AWARD OR REJECTION OF BIDS

The Contract, if awarded, will be awarded to the responsible bidder of the Owner's choice who can best fulfill the terms set within this Project Manual. All other bids will be rejected. The Owner reserves the right to reject any or all bids, and to waive formalities.

This Contract is to be issued in its entirety to the successful bidder.

Owner may consider the qualifications and experience of subcontractors, supplies, and other persons and organizations proposed in the Bid Form. Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the notice of award.

#### 8. EXECUTION OF AGREEMENT

- A. The Owner will execute the Form of Agreement and General Conditions with the successful bidder. A sample is included in the Project Manual.
- B. A meeting will be held within five calendar days of the award date between the successful bidder and the Owner at which all Agreement documents will be signed.
- C. When the successful bidder delivers the executed Agreement to Owner, it must be accompanied by the required Performance and Payment Bond.

- D. When Owner gives a notice of award to the successful bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other Contract Documents attached. Within five business days thereafter, Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required bonds. Within five days thereafter, Owner will deliver one fully signed counterpart to Contractor.
- E. Successful Contractor shall submit evidence of insurance prior to the commencement of work.

Neither the Contractor nor any subcontractor shall commence Work under this Contract until he has obtained all insurance required and such insurance has been approved by the Owner.

#### 9. INTERPRETATION OF CONTRACT DOCUMENTS PRIOR TO BIDDING

- A. If any person contemplating submitting a bid for construction of the Work is in doubt as to the true meaning of any part of the proposed Contract Documents, or finds discrepancies in or omissions from any part of the proposed Contract Documents, he may contact the Engineer for interpretation.
- B. Interpretation or correction of proposed Contract Documents will be made only by Addendum and will be mailed to each general contract bidder of record. The Owner will not be responsible for oral or other interpretations of the proposed Contract Documents.

#### 10. CONSTRUCTION TIME

The Agreement will include a stipulation that the Work will commence as soon as possible and be substantially completed by November 1, 2000.

#### 11. BID SECURITY

- A. Each bid must be accompanied by bid security made payable to Weston Associates in the amount of 10 percent of the bidder's maximum bid price. The bid security shall be in the form of cash, certified check, treasurer's or cashier's check (issued by a responsible bank or trust company) or a bid bond as identified in Section 00300.
- B. The bid security of the successful bidder will be retained until such bidder has executed the Agreement and furnished the required Contract security, whereupon the bid security will be returned. If the successful bidder fails to execute and delivery the Agreement and furnish the required Contract security within five business days after the notice of award, Owner may annul the notice of award and the bid security of that bidder will be forfeited.

END OF SECTION

j:\data\wpdocs\mstrspec\jobs\00103\00100.spc

#### SUBCONTRACTOR/MATERIAL LISTING

#### 1. SUBCONTRACTOR LIST

A. The following subcontractors, suppliers, materials, other persons and organizations are proposed to be employed to furnish portions of the Work: (Please include a minimum of three recent projects that are similar in size and scope to this project. Provide a contact person for each project completed by the subcontractor.)

Type of % of
Name Address Construction/Supplies/Material Contract Price

**END OF SECTION** 

j:\data\mstrspec\jobs\00103\00200.spc

#### 00300

#### **BID FORM**

TO: Weston Associates c/o Jim Grimes Longfellow Commons 206 State Street Portland, ME 04101

מיד	$\sim$	
rк	U	M

1. The undersigned, having examined the proposed Contract Documents and having examined the site for the proposed work titled:

Waterproofing of Plaza Decks and Associated Drainage Improvements

at

Longfellow Commons Portland, Maine

	appl	eby proposes and agrees to furnish all permits, labor, materials, ediances, and to perform operations necessary to complete the work posed "Contract Documents" for the "Base Bid" stipulated sum of	as required by the
	Amo	ount in words:	
2.	The dedu	following unit prices are provided for the Owner to evaluate eit actions from the Work and are approximations for the base bid.	her additions to or
	A.	General Conditions (1 EA)	/EA
	В.	Mobilization/Demobilization (1 EA)	/EA
	C.	Site: 1) Removal of brick pavers and existing membrane (1,100 SF) 2) Concrete deck spall repair (50 SF) (if needed)	/SF /SF
	D.	Masonry: 1) Reset brick pavers (1,100 SF)	/SF
	E.	Installation of waterproof membrane (1,100 SF)	/SF

	F.	Drainage Improvements:	
		1) Installation of trench drain (1 EA)	/EA
		2) Installation of elevated deck drains (2 EA)	/EA
	G.	Epoxy Grout Injection (50 LF)	/LF
3.		ddition to these unit prices, the following rates will be used for any time k as determined by the Owner:	and materia
	A.	Foreman	/Hr.
	B.	Laborer	/Hr.
4.	The	undersigned acknowledges receipt of addenda numbers (if applicable):	
5.	Encl	losed with this bid are copies of the following documents:	
	A.	Subcontractor/Material Listing (Specification Section 00200).	
	B.	List of five prior projects.	
	C.	Substitution Listing (Specification Section 00400), if applicable.	

- 6. The Contractor proposes and agrees to furnish all permits, labor, equipment, tools, and appliances necessary to complete the described aspects of this project. The Contractor agrees to perform operations necessary to complete the Work as described by the proposed Contract Documents.
- 7. Bidder agrees that each subcontractor named in Section 00200 will be used for the Work indicated at the amount stated, unless a substitution is made. Bidder further agrees to pay the premiums for the performance and payment bond furnished by sub-bidders as requested herein and that all of the cost of all such premiums is included in the amount set forth in Item 1 of this bid.
- 8. Bidder agrees that if selected as general contractor, bidder will promptly confer with Owner on the question of subcontractors; and that Owner may substitute for any sub-bid listed in Section 00200 a sub-bid filed with Owner by another contractor for the sub-trade against whose standing and ability bidder makes no objection; and that bidder will use all such finally selected subcontractors at the amounts named in their respective subcontracts and be in every way as responsible for them and their Work as if they had been originally named in his general bid, the total contract price being adjusted to conform thereto.

9. Bidder agrees that, if selected as general contractor, bidder will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by Owner, execute a Contract in accordance with the terms of this bid and furnish a performance and payment bond, each of a surety company qualified to do business under the laws of the State of Maine and satisfactory to Owner in the sum of the Contract price, the premiums for which are to be paid by bidder and are included in the Contract price.

Bidder further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the work "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

- 10. Bidder agrees that the Work will be (a) substantially complete and (b) completed and ready for final payment by November 1, 2000 in accordance with the Contract Documents.
- 11. In submitting this bid, bidder represents, as more fully set forth in the Agreement, that:
  - A. Bidder has familiarized itself with the nature and extent of the Contract Documents, worksite, locality, and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
  - B. Bidder has correlated the results of all such observations, examinations, and investigations with the terms and conditions of the contract documents.
  - C. Bidder has given Owner written notice of all conflicts, errors or discrepancies that it has discovered in the contract documents and the written resolution thereof by Engineer is acceptable to bidder.
  - D. Bidder has ability to meet the minimum experience and qualification criteria.

Waterproofing of Plaza Decks and Associated Drai	nage Improvements at Longfellow Commons	CME 00-103
The undersigned understands and agrees to General Conditions, and the information de	comply with and be bound by the Specepicted in the Project Manual.	cifications, the
BIDDER		
Ву:		
Address:		
Phone Nos.: (O)	(F)	-14
Bid Dated this	day of	2000
Sealed bids will be received at 22 Monument Square, Suite 300, Portlan 2:00 p.m., Tuesday, September 26, 2000.	the office of Criterium - Mooney nd, Maine, by mail or in person n . Bids shall not be faxed.	y Engineers, 10 later than

END OF SECTION

j:\data\mstrspec\jobs\00103\00300.spc

#### **BID BOND**

AIA Document A310 may be one type of bid security executed by the Contractor for submission with his bid form.

A sample document follows this page.

See Specification Section 00100, 11.A, for alternate acceptable forms.

The bond shall be for an amount of 10 percent of the Contract sum.

#### **END OF SECTION**

j:\data\mstrspec\jobs\00103\00350.spc

## THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

## **Bid Bond**

KNOW ALL MEN BY THESE PRESENT	TS, that we  (Here insert full name and address or legal title o	of Contractor
as Principal, hereinafter called the Principal, and	friere insert full name and address or legal to	ille of Surety
a corporation duly organized under the laws of t as Surety, hereinafter called the Surety, are held		tle of Owner
as Obligee, hereinafter called the Obligee, in the	sum of	
for the payment of which sum well and truly to lourselves, our heirs, executors, administrators, so these presents.		
WHEREAS, the Principal has submitted a bid f	OF (Here insert full name, address and descripti	on of project
NOW, THEREFORE, if the Obligee shall accept the bit with the Obligee in accordance with the terms of such bid, or Contract Documents with good and sufficient surety for payment of labor and material furnished in the prosecution such Contract and give such bond or bonds, if the Principal hereof between the amount specified in said bid and such with another party to perform the Work covered by said bid in full force and effect.	and give such bond or bonds as may be specified in the faithful performance of such Contract and for the faithful performance of the failure of the Princip shall pay to the Obligee the difference not to exceed larger amount for which the Obligee may in good failure or the princip failure amount for which the Obligee may in good failure or the princip failure or the	the bidding the promp  al to enter the penalt  ith contract
Signed and sealed this	day of	19
Allie-and	(Principal)	(Seal
(Witness)	(Title)	

ALA DOCUMENT A310 + BID BOND + ALA ® + FEBRUARY 1970 ED + THE AMERICAN INSTITUTE OF ARCHITECTS, 1735 N.Y. AVE. N.W. WASHINGTON, D. C. 20006

(Witness)



Printed on Recycled Paper

(Seal)

(Surety)

(Title)

#### 00400

#### SUBSTITUTION LISTING

TO:	Weston Associates c/o Jim Grimes Longfellow Commons 206 State Street Portland, ME 04101
FROM:	

The Contract Sum indicated on the Bid Form proposed by the Contractor is for the Work as enumerated in the Contract Documents. However, the following substitutions are proposed for the Owner's consideration and approval. If any are accepted, the Contract Sum of the Agreement will be changed by the amount(s) indicated below:

Specified Product or Material	Proposed Substitute Product or Material	Proposed Change in Contract Sum (indicate + or -)

Provide signature identical to that		
shown on the Bid Form	by:	

END OF SECTION

j:\data\mstrspec\jobs\00103\00400.spc

#### 00500

#### FORM OF AGREEMENT

Weston Associates intends to use the <u>Abbreviated Standard Form of Agreement Between Owner and Contractor for Construction Projects of Limited Scope</u>, AIA Document A107-1997, as the Project Form of Agreement. The following copy of the Agreement is presented for the information of the Contractor and is not the actual Agreement. The Agreement will be executed between the Owner and the Contractor after the Contract is awarded. A Performance and Payment Bond as identified in Specification Section 00700 is also required.

END OF SECTION

j:\data\mstrspec\jobs\00103\00500.spc

#### GENERAL REQUIREMENTS

#### PART 1 - GENERAL

#### 1.1 EXAMINATION OF SITE AND CONTRACTUAL DOCUMENTS

A. Before submitting bid and beginning any work, it is understood and agreed that the Contractor has made himself aware of all work required for the satisfactory completion of this Project by careful examination of all Specifications and Work Site related requirements.

#### 1.2 CONTRACTOR'S WARRANTIES

- A. The Contractor warrants that all repair work shall be free from defects and/or leakage for a period of two years.
- B. Any defective work during construction and/or within the warranty period shall be repaired by the Contractor without cost to the Owner or Engineer. This repair cost shall include any direct or indirect damages resulting from the failure or the repair of the work.
- C. The Contractor agrees to indemnify, defend, and hold harmless the Owner and Engineer from and against all loss or expense (including costs and Attorney's fees) by reason of liability imposed by law upon the Owner, Architect, or the Engineer of Record for damages because of bodily injury, including death at anytime arising therefrom, sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of the contract, provided such injury to persons or damage to property is due or claimed to be due to the negligence of the Contractor, his employees or agents.
- D. The Contractor warrants that he is qualified and authorized to do Work in the state of Maine and is familiar with all general and special laws, ordinances, and regulations that may affect the Work, its performance, or those persons employed therein.

#### 1.3 DRAWINGS AND SPECIFICATIONS

- A. Details and information not customarily described in the Project Manual which are, however, necessary for the proper installation and operation of the project's systems or required to meet applicable codes shall be included in the Contractor's price as if herein specified and shown.
- B. The intent of the Specifications is to obtain a leak-free roof structure. The Contractor shall provide all such parts as may be necessary to complete the systems in accordance with the Contract Documents and to the satisfaction of the Engineer and Owner.
- C. If the Contractor discovers any error or omission in the Specifications or in the Work undertaken and performed by him, he shall immediately notify the Engineer and the latter shall promptly investigate the matter and provide instruction for the correction thereof.

#### 1.4 CODES, STANDARDS, INSPECTIONS AND FEES

- A. All Work shall be in accordance with the most recent edition or revision of the following documents:
  - 1. OSHA 2079 Vol. III (Construction Industry Standards).
  - 2. BOCA National Building Code/1996 (Thirteenth Edition).
- B. In case of differences between any of the requirements in paragraph A above, as applied to this project, the most restrictive shall govern.
- C. Where the Specifications indicate Work in addition to the above requirements, the Specifications shall be followed.
- D. All fees for permits and inspections required for the completion of the Work shall be included in the Contractor's bid.
- E. If necessary, the Contractor shall be responsible for the timely notification of the Authority Having Jurisdiction in order that required inspections of Work may be accomplished. The Contractor shall submit a letter to the Engineer stating that the Work has satisfactorily passed inspection by the Authority Having Jurisdiction.

#### 1.5 DIMENSIONS AND COORDINATION

A. The Contractor is responsible to verify field dimensions.

#### 1.6 MATERIALS AND EQUIPMENT

- A. All materials and equipment provided as part of this project shall be new and undamaged with the exception of the patio brick pavers, which will be reused.
- B. Samples of materials and equipment shall be submitted to the Owner for review as required or requested.

#### 1.7 MAINTENANCE INFORMATION

A. At the completion of the project, the Contractor shall furnish two complete sets of record drawings and operating and maintenance manuals to the Owner in three-ring binders for all installed material. Included in this project close-out manual will be an executed Form of Agreement, approved shop drawings, requisitions (including any approved change orders), correspondence, meeting minutes, progress photographs, and any other pertinent project data.

#### 1.8 DEPARTURE FROM DRAWINGS AND SPECIFICATIONS

- A. No departure from these Specifications will be allowed without written request from the Contractor and approved by the Engineer.
- B. Any departure from these Specifications which does not have the written approval of the Engineer may, at the discretion of the Engineer, have to be reworked at the expense of the Contractor.

#### 1.9 SUBSTANTIAL COMPLETION

A. Before a certificate of substantial completion, or its equivalent, is issued for Work herein described, the Contractor shall submit a written statement to the Engineer stating that all work has been satisfactorily accomplished in accordance with the Specifications.

#### END OF SECTION

j:\data\mstrspec\jobs\00103\01000.spc

#### SUMMARY OF WORK

Generally speaking, the scope of work includes removal of approximates 1.100 SF of brick pavers from the patio area adjacent to State Street, proper substrate preparation (per manufacturer and engineer), application and testing of a liquid cold-applied war proofing membrane system (including composite drainage board), and reinstallation of the trick paving system. Associated work includes, but is not limited to:

- the installation of two new area drains within the elevated deck-1.
- 2. the installation of a 28-foot on grade trench drain and associated sping at the covered entry to the parking area;
- epoxy grout injection of structural cracks at support columns.

- Pressure wash

END OF SECTION

j:\data\mstrspec\jobs\00103\01100.spc

#### SUBMITTALS AND SUBSTITUTIONS

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Work included: Make submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.
- B. Related work: Individual requirements for submittals also may be described in pertinent Sections of these Specifications.
- C. Work not included:
  - 1. Unrequired submittals will not be reviewed by the Engineer.
  - 2. The Contractor may require his subcontractors to provide drawings or similar information to help coordinate the Work, but such data shall remain between the Contractor and his subcontractors and will be not reviewed by the Engineer.

#### 1.2 QUALITY ASSURANCE

#### A. Substitutions:

- 1. The Work is based on the standards of quality established in the Contract Documents. Substitutions will be considered only when listed at time of bidding, on the form provided in the bidding documents, and when substantiated by the Contractor's submittal of required data after award of the Contract.
- 2. The following products do not require further approval except for interface within the Work:
  - a. Products specified by reference to standard specifications such as ASTM and similar standards.
  - b. Products specified by manufacturer's name and catalog model number.

3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this Work by the Engineer.

#### B. "Or equal":

- 1. Where the phrase "or equal," or "or approved equal," occurs in the Contract Documents, do not assume that the materials, equipment, or methods will be approved as equal unless the item has been specifically so approved for this Work by the Engineer in writing.
- 2. Submit to the Engineer the necessary product information concerning the proposed "equal."
- 3. The decision of the Engineer to approve or disapprove an "equal" shall be final.

#### 1.3 SUBMITTALS

A. Make submittals of Shop Drawings, Samples, substitution requests, MSDS sheets and other items, in accordance with the provisions of this Section.

#### PART 2 - PRODUCTS

#### 2.1 SHOP DRAWINGS

- A. Scale and measurements: Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.
- B. Types of prints required:
  - 1. Submit Shop Drawings in the form of three (3) blueline or blackline prints of each sheet and one (1) sepia reproducible of each sheet.
- C. Review comments of the Engineer will be shown on the prints and one (1) copy and the sepia will be returned to the Contractor. Review comments shall be read and understood by the Contractor and party which produced the Shop Drawings.
- D. Follow Engineer's directions indicated in the review comments.
- E. Resubmit shop drawings to the Engineer, as required.

## 2.2 MANUFACTURER'S LITERATURE

- A. Where Antents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review.
- B. Submit the number of copies which are required to be returned, plus two copies which will be retained by the Engineer.

#### 2.3 SAMPLES

As directed by the Engineer, provide a Sample or Samples identical to the precise article proposed to be provided. Identify as described under "Identification of Submittals" below.

#### PART 3 - EXECUTION

## 3.1 IDENTIFICATION OF SUBMITTALS

- A. Consecutively number all submittals:
  - 1. When material is resubmitted for any reason, transmit under a new letter of transmittal and with the existing transmittal number.
  - 2. (In resubmittals, cite the original submittal number with an "A," "B", or "C" to identify resubmittals.
- B. Accompany each submittal with a letter of transmittal showing all information required for identification and checking.
- C. On at least the first page of each submittal, and elsewhere as required for positive identification, show the submittal number in which the item was included.

## 3.2 TIMING OF SUBMITTALS

- A. Make submittals far enough in advance of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
- B. In scheduling, allow at least five (5) working days for review by the Engineer following his receipt of the submittal.

#### 3.3 ENGINEER'S REVIEW

- A. Review by the Engineer does not relieve the Contractor from responsibility for errors which may exist in the submitted data.
- B. Revisions:
  - 1. Make revisions required by the Engineer.
  - 2. If the Contractor considers any required revision to require a change in Contract Sum or Contract Times, he shall notify the Owner and Engineer within five (5) working days.
  - 3. Make only those revisions directed or approved by the Engineer.

END OF SECTION

j:\data\mstrspec\jobs\00103\01330.spc

#### TEMPORARY FACILITIES AND CONTROLS

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Work included: Provide temporary facilities and controls needed for the Work including, but not necessarily limited to:
  - 1. enclosures such as tarpaulins, barricades, and canopies; and
  - 2. temporary protection of the building.

#### PART 2 - PRODUCTS

#### 2.1 UTILITIES

A. Water: Provide any necessary temporary piping, hoses, fittings, etc., and, upon completion of the Work, remove such temporary facilities. Cost of water shall be paid for by the Owner.

#### B. Electricity:

- 1. Provide necessary temporary fittings, wiring, etc., and upon completion of the Work, remove such temporary facilities.
- 2. Provide area distribution boxes so located that the individual trades may furnish and use 100-foot maximum length extension cords to obtain power and lighting at points where needed for work, inspection, and safety.
- 3. Cost of electricity shall be paid for by the Owner.

#### D. Telephone:

1. Telephone service within the building facilities will not be allowed.

#### 2.2 FIELD OFFICES AND SHEDS

- A. Contractor's facilities: The Owner will provide an area for Contractor's supply and storage. Coordinate size and location with owner.
- B. The on-site representative of the General Contractor shall be equipped with one set of plans/specifications and an MSDS folder incorporating all materials used on site.

#### 2.3 TOILET

A. Use of the building's toilet facilities will not be allowed. Provisions for a portable toilet may be required at the discretion of the Contractor and any cost associated will be the responsibility of the Contractor.

#### 2.4 ENCLOSURES

A. Provide all safety and protective, tarpaulins, canopies, barricades, warning signs, steps, platforms, ladders, bridges, and other temporary construction of appropriate materials necessary for proper completion of the Work in compliance with pertinent safety and other regulations.

#### PART 3 - EXECUTION

#### 3.1 MAINTENANCE AND REMOVAL

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the Work.
- B. Remove such temporary facilities and controls as rapidly as progress of the Work will permit. At all times vehicles will have access to the garage.

#### 3.2 LOCATION FOR FIELD OFFICES AND SHEDS

A. The Owner will assist Contractor in verifying the acceptable locations for temporary storage areas.

#### 3.3 ENCLOSURES

- A. Install enclosures as required for safety of persons and protection of building surfaces and materials.
- B. Provide and maintain, as required, barriers of design and type needed to prevent entry onto the Work by the public and residents.

END OF SECTION

j:\data\mstrspec\jobs\00103\01500.spc

#### PRODUCT REQUIREMENTS

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Work included: Protect products scheduled for use in the Work by means including, but not necessarily limited to, those described in this Section.
- B. Related work: Additional procedures also may be prescribed in other Sections of these specifications.

#### 1.2 MANUFACTURERS' RECOMMENDATIONS

- A. Determine and comply with product manufacturers' recommendations on product handling, storage, and protection.
- B. A complete MSDS listing of all applicable materials shall be kept up-to-date and accessible to the Owner at all times.

#### 1.3 PACKAGING

- A. Deliver products to the job site in their manufacturer's original container, with labels intact and legible.
  - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
  - 2. Promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements, at no additional cost to the Owner.
- B. The Engineer may reject as non-complying such materials and products that do not bear satisfactory identification as to manufacturer, grade, quality, and other pertinent information.

#### PART 2 - PRODUCTS (NOT APPLICABLE)

#### PART 3 - EXECUTION (NOT APPLICABLE)

#### END OF SECTION

#### **CLEANING**

#### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. Work included: Throughout the construction period, maintain the buildings and site in a standard of cleanliness as described in this Section.
- B. Provide waste storage containers of size and quantity necessary.
- C. Related work: In addition to standards described in this Section, comply with requirements for cleaning as described in pertinent other Sections of these Specifications.

#### 1.2 QUALITY ASSURANCE

- A. Conduct daily inspection, and more often if necessary, to verify that requirements for cleanliness are being met.
- B. A pre-construction survey consisting of a minimum of 36 photographs or 30 minutes of video recording of the surrounding conditions shall be made prior to construction and submitted for approval to the Owner. Progress photographs at a minimum of 1 roll/week will be required and will be included in the project "close-out" manual as identified in Specification Section 01000.1.7.

#### PART 2 - PRODUCTS

#### 2.1 CLEANING MATERIALS AND EQUIPMENT

A. Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

#### 2.2 COMPATIBILITY

A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material.

#### 2.3 WASTE STORAGE CONTAINER

- A. The Contractor is responsible for providing a suitable waste storage container of sufficient size or numbers for the temporary storage of wastes generated by the Work of this Section and other Sections of these Specifications.
- B. The Contractor is responsible for the proper and timely transfer of stored wastes to a proper off-site disposal.

#### PART 3 - EXECUTION

#### 3.1 PROGRESS CLEANING

#### A. General:

- 1. Retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage, and providing required protection of materials.
- 2. Do not allow accumulation of scrap, debris, waste material, and other items not required for construction of this Work, except in proper waste container(s).
- 3. Provide adequate storage for all debris and trash awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

#### B. Site:

- Daily inspect the site and pick up all scrap, debris, and waste material. Remove such items to the container(s) designated for their storage.
- 2. Daily inspect all arrangements of construction materials stored on the site. Restack, organize neatly, tidy or otherwise service arrangements to meet requirements of subparagraph 3.1-A-1 above.
- 3. Maintain the site in a neat and orderly condition at all times.

## C. Building:

- 1. Daily inspect and pick up all scrap, debris, and waste material. Remove such items to the container(s) designated for their storage.
- 2. As required preparatory to installation of succeeding materials, clean the surfaces to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the necessary cleanliness.

## 3.2 FINAL CLEANING

A. Prior to completion of the Work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste. Conduct final progress cleaning as described in Article 3.1 above.

#### B. Site:

- 1. Broom clean paved areas used by construction workers on the site.
- 2. Rake surrounding site.
- 3. Completely remove resultant debris.

## C. Building:

- 1. Exterior:
  - a. Visually inspect exterior building surfaces and remove all traces of soil, waste materials, smudges, and other foreign matter caused by the Work.
  - b. Remove all traces of splashed materials from adjacent surfaces.

## END OF SECTION

j:\data\mstrspec\jobs\00103\01710.spc

## SELECTIVE DEMOLITION

#### PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings A-1 through A-3 and General Provisions of Contract, including General Conditions and Division 1 Specification, apply to this Section.

#### 1.2 SUMMARY

A. Work included: Remove the existing brick pavers, area drains, and any other material to expose the cast-in-place concrete substrate. Remove area drains and asphalt as needed at the garage floor for installation of trench drain.

Removal of materials and debris, including any delaminated concrete, includes proper site storage and off-site disposal, with the exception of brick pavers that will be reused.

- B. The Contractor, upon exposing the existing cast-in-place concrete will inform the Engineer so that the concrete can be "sounded." As appropriate, the Engineer will identify delaminated areas for repair as described in the Contract Documents.
- C. Conform to all federal, state and local safety requirements.

## 1.2 SUBMITTALS

- A. Request for Engineer's consent:
  - 1. Should conditions of the Work, or schedule, indicate a required change of materials or methods for the installation of the waterproof membrane and brick pavers, notify the Engineer and secure his written permission and the required Change Order prior to proceeding.

## PART 2 - PRODUCTS

## 2.1 TOOLS AND EQUIPMENT

- A. Provide the adequate tools and equipment necessary to carry out the work of this Section without damage to the brick pavers. Equipment in excess of 1000 lbs. shall not be used on the elevated slab.
- B. Do not use tools, products and/or equipment which could damage the portions of the building which are to remain.

#### PART 3 - EXECUTION

#### 3.1 SURFACE CONDITIONS

## A. Inspections

- 1. Inspect existing conditions.
- 2. After uncovering the cast-in-place concrete work, inspect conditions affecting installation of new work.
- 3. Visually examine all areas of the project to determine actual conditions.

## B. Discrepancies

- 1. If uncovered conditions require additional work not within the scope of work defined in the Project Manual, immediately notify the Engineer and secure needed directions prior to proceeding.
- 2. Do not proceed until written directions are obtained from the Engineer.

## 3.2 REMOVAL OF UNWANTED EXISTING MATERIALS

- A. Removal of materials must not cause damage to portions of building which are to remain.
- B. The Contractor is responsible for correcting all damages to the Owner's satisfaction at no cost to the Owner.

## 3.3 LEVEL OF PERFORMANCE

- A. Remove all unwanted existing materials as described in this Section to achieve a surface suitable for the application of proposed materials described in the Drawings and other Sections of these Specifications.
- B. Installation of membrane waterproofing system signifies the condition of the substrate as acceptable and by no means will alter the terms of warranty.

## 3.4 DISPOSAL OF MATERIALS

A. The Contractor shall pay for all dumping fees to conform with all state and local requirements for disposal of construction debris. All permits and police details, if needed, are the responsibility of the Contractor.

END OF SECTION

j:\data\mstrspec\jobs\00103\02070.spc

### HOT-MIX ASPHALT PAVING

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings A-1 through A-3 and General Provisions of Contract, including General Conditions and Division 1 Specification, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Hot-mix asphalt paving.

## 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who has completed hot-mix asphalt paving similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.
- B. Manufacturer Qualifications: Engage a firm experienced in manufacturing hotmix asphalt similar to that indicated for this Project and with a record of successful in-service performance.
- C. Asphalt-Paving Publication: Comply with AI's "The Asphalt Handbook," except where more stringent requirements are indicated.

#### 1.4 PROJECT CONDITIONS

- A. Environmental Limitations: Do not apply asphalt materials if substrate is wet or excessively damp or if the following conditions are not met:
  - 1. Prime and Tack Coats: Minimum surface temperature of 60 deg F (15.5 deg C).
  - 2. Slurry Coat: Comply with weather limitations of ASTM D 3910.
  - 3. Asphalt Base Course: Minimum surface temperature of 40 deg F (4 deg C) and rising at time of placement.
  - 4. Asphalt Surface Course: Minimum surface temperature of 60 deg F (15.5 deg C) at time of placement.

#### PART 2 - PRODUCTS

#### 2.1 AGGREGATES

- A. General: Use materials and gradations that have performed satisfactorily in previous installations.
- B. Coarse Aggregate: Sound; angular crushed stone; crushed gravel; or properly cured, crushed blast-furnace slag; complying with ASTM D 692.
- C. Fine Aggregate: Sharp-edged natural sand or sand prepared from stone; gravel, properly cured blast-furnace slag, or combinations thereof; complying with ASTM D 1073.
  - 1. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.

## 2.2 ASPHALT MATERIALS

- A. Asphalt Cement: ASTM D 3381 for viscosity-graded material; ASTM D 946 for penetration-graded material.
- B. Prime Coat: Asphalt emulsion prime conforming to state DOT requirements.
- C. Tack Coat: ASTM D 977, emulsified asphalt or ASTM D 2397, cationic emulsified asphalt, slow setting, factory diluted in water, of suitable grade and consistency for application.
- D. Water: Potable.

#### 2.3 MIXES

- A. Hot-Mix Asphalt: Provide dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction; designed according to procedures in AI's "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types"; and complying with the following requirements:
  - 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.
  - 2. Base Course: As indicated.

- 3. Surface Course: As indicated.
  - a. Base Course: 1 inch (25 mm).
  - b. Surface Course: 1/2 inch (13 mm).
- B. Emulsified-Asphalt Slurry: ASTM D 3910, consisting of emulsified asphalt, fine aggregates, and mineral fillers and as follows:
  - 1. Composition: Type 2.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Verify that subgrade is dry and in suitable condition to support paving and imposed loads.

## 3.2 PATCHING AND REPAIRS

- A. Patching: Saw cut perimeter of patch and excavate existing pavement section to sound base. Recompact new subgrade. Excavate rectangular or trapezoidal patches, extending 12 inches (300 mm) into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically.
  - 1. Tack coat faces of excavation and allow to cure before paving.
  - 2. Fill excavation with dense-graded, hot-mix asphalt base mix and, while still hot, compact flush with adjacent surface.
- B. Tack Coat: Apply uniformly to existing surfaces of previously constructed asphalt or portland cement concrete paving and to surfaces abutting or projecting into new, hot-mix asphalt pavement. Apply at a uniform rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m) of surface.
  - 1. Allow tack coat to cure undisturbed before paving.
  - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

#### 3.3 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
  - 1. Sweep loose granular particles from surface of unbound-aggregate base course. Do not dislodge or disturb aggregate embedded in compacted surface of base course.
- B. Prime Coat: Apply uniformly over surface of compacted-aggregate base at a rate of 0.15 to 0.50 gal./sq. yd. (0.7 to 2.3 L/sq. m). Apply enough material to penetrate and seal, but not flood, surface. Allow prime coat to cure for 72 hours minimum.
  - 1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use just enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
  - 2. Protect primed substrate from damage until ready to receive paving.

#### 3.4 HOT-MIX ASPHALT PLACING

- A. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
- B. Spread mix at minimum temperature of 250 deg F (121 deg C).

#### 3.5 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
  - 1. Complete compaction before mix temperature cools to 185 deg F (85 deg C).
- B. Breakdown Rolling: Accomplish breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Repair surfaces by loosening displaced material, filling with hot-mix asphalt, and rerolling to required elevations.

- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling, while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
  - 1. Average Density: 96 percent of reference laboratory density according to ASTM D 1559, but not less than 94 percent nor greater than 100 percent.
  - 2. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while still hot, with back of rake or smooth iron. Compact thoroughly using tamper or other satisfactory method.
- F. Repairs: Remove paved areas that are defective or contaminated with foreign materials. Remove paving course over area affected and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.
- G. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- H. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

#### 3.6 INSTALLATION TOLERANCES

- A. Thickness: Compact each course to produce the thickness indicated within the following tolerances:
  - 1. Base Course: Plus or minus 1/2 inch (13 mm).
  - 2. Surface Course: Plus 1/4 inch (6 mm), no minus.

- B. Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot (3-m) straightedge applied transversely or longitudinally to paved areas:
  - 1. Base Course: 1/4 inch (6 mm).
  - 2. Surface Course: 1/8 inch (3 mm).

END OF SECTION

j:\data\mstrspec\jobs\00103\02511.spc

#### CONCRETE REPAIRS

## PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings A-1 through A-3 and General Provisions of Contract, including General Conditions and Division 1 Specification, apply to this Section.

## 1.2 SUMMARY

- A. This Section includes repair of existing cast-in-place concrete.
  - 1. Repair of spalled and/or delaminated concrete.
  - 2. New cast-in-place concrete to "set" ground level trench drain.

#### 1.3 SUBMITTALS

- A. General: If needed, submit the following in accordance with conditions of Contract and Division 1 Specification sections.
- B. Product data, manufacturer's specifications and installation instructions for the following products. Include laboratory test reports and other data to show compliance with specifications (including specified standards).
  - 1. Bonding agent Anti-corrosion and Bonding Agent:
    - a. Sonoprep as manufactured by Sonneborn (Chemrex, Inc.), Shakopee, Minnesota.
  - 2. Rapid-set mortar (for horizontal applications):
    - a. As required by Sonneborn (Chemrex, Inc.).
  - 3. Concrete mix design.

## 1.4 QUALITY ASSURANCE

- A. Codes and standards: comply with provisions of following, except as otherwise indicated:
  - 1. American Concrete Institute (ACI) "ACI Manual of Concrete Practice"

## 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to site at such intervals to ensure uninterrupted progress of work.
- B. Store materials to permit easy access for inspection and identification.
  - 1. Do not store materials on structure in a manner that might cause distortion or damage to members or supporting structures. Repair or replace damaged materials or structures as directed.

#### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. All concrete repair materials shall be compatible with the waterproof membrane and with existing concrete base material.
- B. All materials shall be resistant to stresses resulting from freeze/thaw cycles, de-icing salts, continuous presence of moisture, and a temperature range of -30° to 100°F.

#### PART 3 - EXECUTION

#### 3.1 REPAIR ALL SPALLED CONCRETE

- A. Preparation of concrete surfaces: Concrete surfaces, to which repairs are to be done, shall be exposed parent concrete free of loose, unsound materials.
  - 1. Saw cut all perimeter edges straight and true with a 5° beveled undercut.
  - 2. Use mechanical abrasion to remove loose, spalled concrete and surface rust. Undercut all exposed reinforcing 3/4".
  - 3. Mechanically clean concrete surface and exposed reinforcing to remove existing contaminants.
  - 4. Exposed reinforcement shall be cleaned of all rust and bonded concrete.
  - 5. Estimate cross-section loss of corroded reinforcement. If section loss exceeds 25%, notify the Engineer immediately.
  - 6. Allow concrete surface to dry a minimum of 24 hours.

## B. Inspection:

1. Inspect all concrete surfaces prior to application of adhesive to insure proper preparation and surface drying.

## C. Repair:

- 1. Apply bonding and anti-corrosion agent (Sonoprep).
  - a. For spalled areas less than 1½" deep, repair with the specified rapid-set mortar.
  - b. For spalled areas with a depth greater than 1½", repair with the specified rapid-set mortar (or approved equal) extended with 3/8" peastone.
- Curing adhere to manufacturer's instructions.

## 3.2 CLEANING

A. Clean off excess material adjacent to work in progress by methods and with cleaning materials approved by manufacturer's of associated material.

## 3.3 PROTECTION

A. Protect patched areas during and after curing period from contact with contaminating substances or from damage so that they are without deterioration or damage at the time of applying the waterproof membrane.

## END OF SECTION

j:\data\mstrspec\jobs\00103\03310.spc

## BRICK REMOVAL AND REPLACEMENT

## PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
  - A. Drawings A-1 through A-3 and General Provisions of Contract, including General Conditions and Division 1 Specification, apply to this Section.
- 1.2 SUMMARY
  - A. Work includes:
    - 1. Removal and reinstallation of exterior brick pavers for the application of a waterproof membrane.
- 1.3 SUBMITTALS
  - A. Literature:
    - 1. Cement.
    - 2. Rock dust.
  - B. Samples:
    - 1. Brick paver (if needed).

#### PART 2 - PRODUCTS

- 2.1 MATERIALS
  - A. Materials:
    - 1. Portland cement: ASTM C150, natural gray.

## PART 3 - EXECUTION

## 3.1 REMOVAL

- A. Remove all brick without damage. All damaged bricks will be replaced by the Contractor.
- B. The means and methods for cleaning the concrete substrate are the responsibility of the Contractor and must adhere to the substrate preparation prepared by Sonneborn and, at a minimum, will require power grinding.
- C. All equipment used on the elevated deck shall be a maximum weight of 1,000 pounds.

## 3.2 INSTALLATION

A. Install bricks on top of composite drainage board and geotextile fabric in full rock dust bed with a light covering of cement. All joints shall be completely filled with rock dust.

END OF SECTION

j:\data\mstrspec\jobs\00103\04300.spc

## WATERPROOFING MEMBRANE SYSTEM

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings A-1 through A-3 and General Provisions of Contract, including General Conditions and Division 1 Specification, apply to this Section.

## 1.2 DESCRIPTION

- A. Work includes the application of approximately 1,100 SF of membrane and the following:
  - 1. Preparation of existing structural concrete surfaces to receive sheet waterproofing. Prepare surfaces as recommended by the manufacturer.
  - 2. Installation of a sheet membrane and accessories.
  - 3. Testing.
- B. Related Sections: The following sections contain requirements related to this Section:
  - 1. Division 3, "Concrete Repairs."
  - 2. Division 7, "Joint Sealants."
  - 3. Division 7, "Epoxy Grout Injection."
  - 4. Division 15, "Floor Drain Installation."

#### 1.3 SUBMITTALS

A. Product Data, including manufacturer's printed instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties.

## PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

A. HLM 5000 liquid cold-applied waterproofing membrane system as manufactured by Sonneborn (Chemrex, Inc.), Shakopee, Minnesota.

## 2.2 MEMBRANE SYSTEM

- A. Liquid Membrane: 45 dry mils (60 mils wet) of asphalt-modified polyurethane.
- B. Protection Course II 1/4" thick protection board.
- C. Auxiliary Materials:
  - 1. General: Furnish auxiliary materials recommended by waterproofing manufacturer for intended use and compatible with waterproofing sheet membrane.
    - a. Furnish liquid-type auxiliary materials that meet VOC limits of authorities having jurisdiction.
  - 2. Primer: Liquid primer recommended by manufacturer of waterproofing material for substrate.
- D. Drainage Composite Board: Mirafi 9000 or approved equal.
- E. Geotextile Fabric: Mirafi 140N or approved equal.

## PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions under which waterproofing systems will be applied, with Installer present, for compliance with requirements. Do not proceed with installation until unsatisfactory conditions have been corrected.
  - 1. Notify Engineer in writing of anticipated problems using waterproofing over substrate.

## 3.2 SURFACE PREPARATION

William .

- A. Clean, prepare, and treat substrate according to manufacturer's written instructions. Provide clean, dust-free, and dry substrate for waterproofing application.
- B. Seal all cracks and control joints with Sonolastic<sup>™</sup> sealant.
- C. Mask off adjoining surfaces not receiving waterproofing to prevent spillage affecting other construction.
- D. Remove grease, oil, form release agents, paints, and other penetrating contaminants from concrete.
- E. Remove fins, ridges, mortar, and other projections and fill honeycomb, aggregate pockets, holes, and other voids.

## 3.3 APPLICATION

- A. Install membrane and protection board according to waterproofing manufacturer's written instructions.
- B. Apply primer to substrate at required rate and allow to dry. Limit priming to areas that will be covered by waterproofing membrane in same day. Re-prime areas exposed for more than 24 hours.
- C. Substrate temperatures shall be between 40 deg F and 90 deg F for application.

## 3.4 FIELD QUALITY CONTROL

- A. Test area for leaks after waterproofing and before overlaying construction materials are placed. Plug or dam surroundings as needed and fill with water to a depth of 2 inches (50 mm). Flood each area for 24 hours.
- B. Correct deficiencies in or remove waterproofing that does not comply with requirements, repair substrates, reapply waterproofing, and repair sheet flashings.

## 3.5 PROTECTING AND CLEANING

- A. Protect waterproofing from damage and wear during application and remainder of construction period, according to manufacturer's written instructions.
- B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

## 3.6 WARRANTY

A. A single source warranty, provided by the manufacturer for a term of five years, covering both labor and material is required.

END OF SECTION

j:\data\mstrspec\jobs\00103\07111.spc

#### JOINT SEALANTS

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings A-1 through A-3 and General Provisions of Contract, including General Conditions and Division 1 Specification, apply to this Section.

## 1.2 SUMMARY

- A. This Section includes joint sealants for the following locations:
  - 1. Joints in horizontal surfaces as indicated below:
    - a. Non-expansion joints at patio flatwork.

## 1.3 SYSTEM PERFORMANCE REQUIREMENTS

A. Provide Sonolastic<sup>TM</sup> joint sealants that have been produced and installed to establish and to maintain watertight continuous seals without causing staining or deterioration of joint substrates.

## 1.4 SUBMITTALS

A. Product data from manufacturers for each joint sealant product required.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has completed joint sealant applications in material, design, and extent to that indicated for Project that have resulted in construction with a record of successful in-service performance.
- B. Single Source Responsibility for Joint Sealant Materials: Obtain joint sealant materials from Sonneborn.

## 1.6 PROJECT CONDITIONS

- A. Environmental Conditions: Per manufacturer's most current published specifications, requirements and recommendations.
- B. Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.
- C. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

## PART 2 - PRODUCTS

## 2.1 MATERIALS

- A. Multi-Part Non-Sag Urethane Sealant:
  - Sonolastic NP2, Sonneborn.
- B. Multi-Part Pourable Urethane Sealant:
  - 1. Sonolastic SL2, Sonneborn

## 2.2 JOINT SEALANT BACKING

- A. General: Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Plastic Foam Joint Fillers: Preformed, compressible, resilient, non-staining, non-waxing, non-extruding strips of flexible plastic foam of material indicated below and of size, shape, and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
  - 1. Closed-cell polyethylene foam, nonabsorbent to liquid water and gas, non-outgassing in unruptured state.

- 2. Elastomeric Tubing Joint Fillers: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 4056, nonabsorbent to water and gas, capable of remaining resilient at temperatures down to -26°F (-32°C). Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and otherwise contribute to optimum sealant performance.
- 3. Bond-Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

## 2.3 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturer of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming in any way joint substrates and adjacent nonporous surfaces, and formulated to promote optimum adhesion of sealants with joint substrates.
- C. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

## PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer and a representative of the membrane manufacturer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint sealant performance. Do not proceed with installation of joint sealants until unsatisfactory conditions have been corrected.

## 3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with recommendations of joint sealant manufacturer and the following requirements:
  - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface, dirt, and frost.
  - Clean concrete, unglazed surfaces of ceramic tile, and similar porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.
  - 3. Remove laitance and form release agents from concrete.
  - 4. Clean metal, glass, porcelain enamel, glazed surfaces of ceramic tile, and other nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates where indicated or where recommended by joint sealant manufacturer based on preconstruction joint sealant-substrate tests or prior experience. Apply primer to comply with joint sealant manufacturer's recommendations. Confine primers to areas of joint sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

## **INSTALLATION OF JOINT SEALANTS**

- A. General: Comply with joint sealant manufacturer's printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations of ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Installation of Sealant Backings: Install sealant backings to comply with the following requirements:
  - 1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

Do not leave gaps between ends of joint fillers.

Do not stretch, twist, puncture, or tear joint fillers.

Remove absorbent joint fillers that have become wet prior to sealant application and replace with dry material.

- 2. Install bond breaker tape between sealants where backer rods are not used between sealants and joint fillers or back of joints.
- D. Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability. Install sealants at the same time sealant backings are installed. Install sealant throughout all cut-outs at spall repairs.
- E. Tooling of Non-Sag Sealants: Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents that discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

## CLEANING

A. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealants and of products in which joints occur.

## 3.5 PROTECTION

A. Protect joints sealants during and after curing period from contact with contaminating substances or from damage so that they are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so that any installations with repaired areas are distinguishable from original work.

END OF SECTION

j:\data\mstrspec\jobs\00103\07900.spc

## **EPOXY GROUT INJECTION**

## PART 1 - GENERAL

## 1.1 SCOPE

A. The Contractor shall provide all materials, labor, and equipment to chemically inject approximately 50 LF of cracks designated as structural cracks are located in the elevated cast-in-place concrete slab.

## 1.2 REFERENCES

- A. ANSI/NSF International: American National Standards Institute.
- B. ISO 9002 Quality Assurance in Production and Installation.

## 1.3 EXPERIENCE

- A. The Contractor shall have had a minimum of five years' experience in concrete repair with epoxy grouting and patching.
- B. A full-time, on-site supervisor shall be provided by the Contractor for the entire duration of the chemical injection work. The supervisor shall have had a minimum of 2 years of documented supervisory experience with the products to be used. If the supervisor does not haves that experience, the supplier or manufacturer of the materials shall provide a full-time, qualified, certified by the manufacturer field inspector on jobsite during the entire period of material application. The Installation Contractor shall submit with his bid to the Engineer a proof of obtaining licenses or permits as required.
- C. The Contractor shall submit the following to the Engineer:
  - 1. Documentation showing compliance with the Applicator Qualifications.

- 2. Technical data sheets published by the material manufacturers for each epoxy product or formulation to be used showing that his products meet the requirements of the specifications.
- 3. The epoxy for injection shall be:
  - a. Epofil SLV as manufactured by Sonneborn.

## 1.4 CLEANING CRACKED SURFACES

A. This surface condition makes it difficult to determine the exact extent of the cracks and leaks. To better define the crack and the source of leakage, the Contractor shall be required to mechanically clean the surface within 2 feet on either side of the suspected source of leaks.

## 1.5 METHOD

- A. Cracks will be sealed by injection with an epoxy grout which structurally repairs the crack.
- B. Manufacturers' data shall be submitted for approval prior to installation.
  - 1. Material must be N.S.F. certified to ANSI/NSF-61.
  - 2. Materials must be manufactured in facility that is ISO 9002 registered.
- C. Pressure Injection Procedures:
  - 1. The cracks to be sealed will be verified and identified as indicated on the contract drawings. All debris shall be cleaned up and removed from the project daily.
  - 2. 1/2- to 5/8-inch diameter portholes will be drilled adjacent to and along the crack at a 45-degree angle to a manufacturer recommended point of intersection with the crack. Spacing of ports to be per manufacturer's recommendations.
  - 3. Drilling debris shall be washed from the portholes.

- 4. Mechanical injectors having a ball check device will be inserted and secured.
- 5. Joints will be flushed with an acid/water or calcium dissolving agent to clean cracks. This solution will then be flushed out repeatedly with clean water in order to observe how the cracks will accept the sealer and to provide water for the grouting compound to react with.

END OF SECTION

j:\data\mstrspec\jobs\00103\07920.spc

## FLOOR DRAIN INSTALLATION

## PART 1 - GENERAL

## L.I RELATED DOCUMENTS

A. Drawings A-1 through A-3 and General Provisions of Contract, including General Conditions and Division 1 Specifications, apply to this Section.

## 1.2 SUMMARY

A. This Section includes the installation of two area drains, one 24-foot trench drain, and associated piping.

## 1.3 SUBMITTALS

A. Submit manufacturers' data/catalog cuts.

#### PART 2 - PRODUCTS

#### 2.1 MATERIALS

D.

Drain shall be:

- A. All materials shall be compatible with existing concrete base material.
- B. All materials shall be resistant to stresses resulting from automobile traffic and freeze/thaw cycles, de-icing salts, continuous presence of moisture, and a temperature range of 30° to 100°F.
- C. All materials shall be resistant to corrosion or deterioration due to contact with water.
- 2. 2urn Model Z-150 with underdeck clamp and sedimentation bucket (area drain) or approved equal.
- Zurn Model Z-664 with side outlet adapter and sedimentation bucket (trench drain) or approved equal.

  86, 249, 115

  Phi 137-933-0436

Z 306 62/LF 30/cap 15 4" drain FLOOR DRAIN INSTALLATION + 58 cut \$1583.06

## PART 3 - EXECUTION

## 3.1 FLOOR DRAIN INSTALLATION

## A. Preparation:

- 1. Make any necessary concrete repairs in accordance with Section 03310 of this Specification.
- 2. Clean rusted steel connections and/or reinforcement.
- 3. Paint steel with zinc-rich paint.

## B. Installation:

- 1. Install new drains in appropriate locations. All associated piping required for tie-in to existing drain lines is the responsibility of the Contractor. All new piping to be cast iron.
- 2. Ensure that top of drain is a minimum of 1/4" below surrounding surfaces.
- 3. Caulk around floor drain with approved joint sealant.

## 3.2 CLEANING

A. Clean off excess material adjacent to work with cleaning materials approved by manufacturer's of associated material.

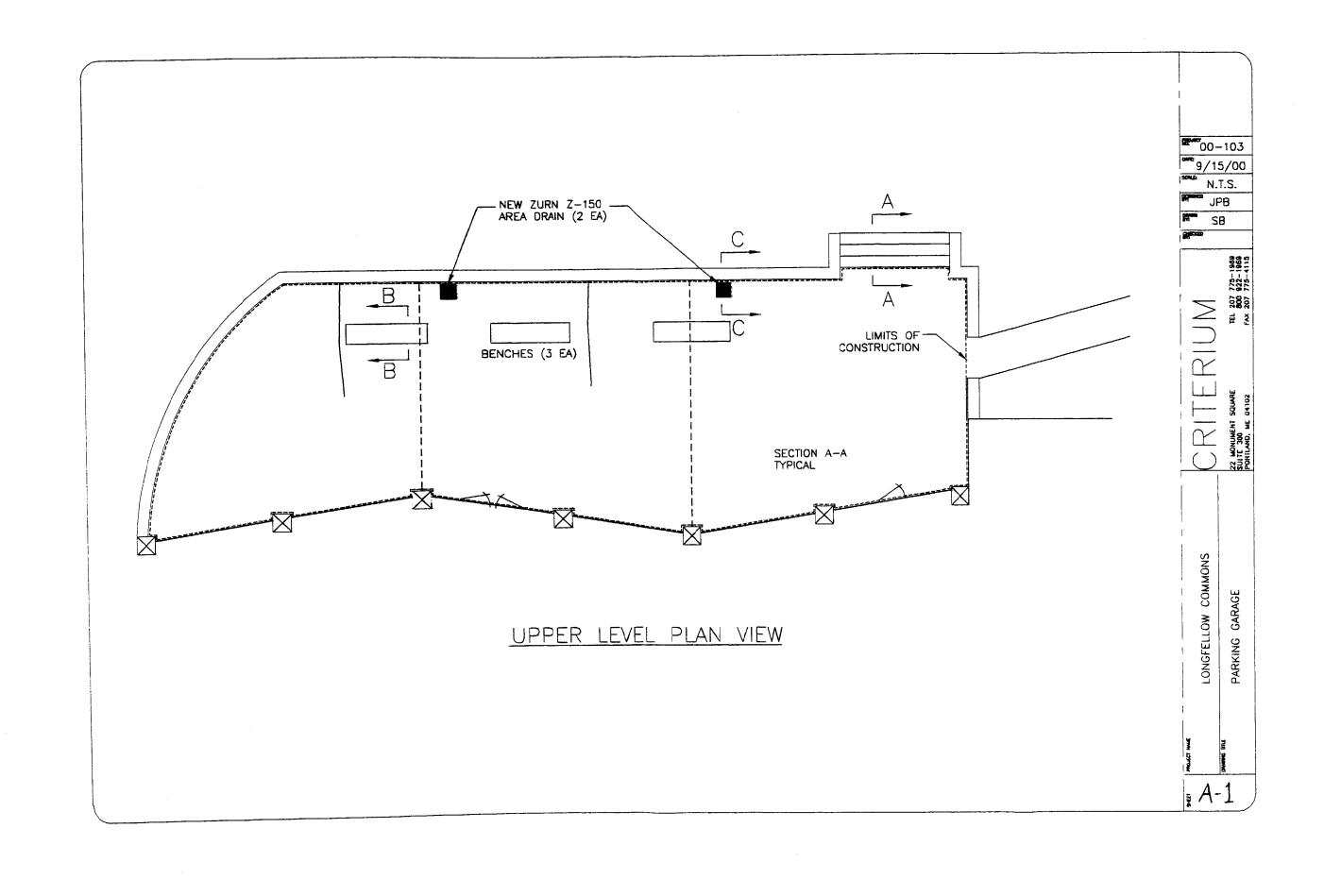
## 3.3 PROTECTION

A. Protect repaired/patched areas in respect to repairs required around the floor drains, so that they are without deterioration or damage at the time of substantial completion.

END OF SECTION

j:\data\mstrspec\jobs\00103\15440.spc



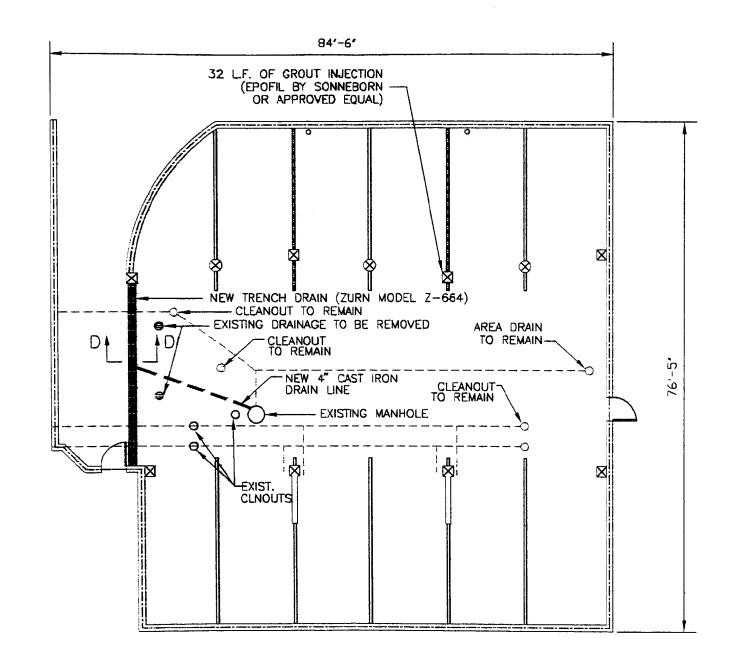


The second second

A CONTRACTOR OF THE CONTRACTOR

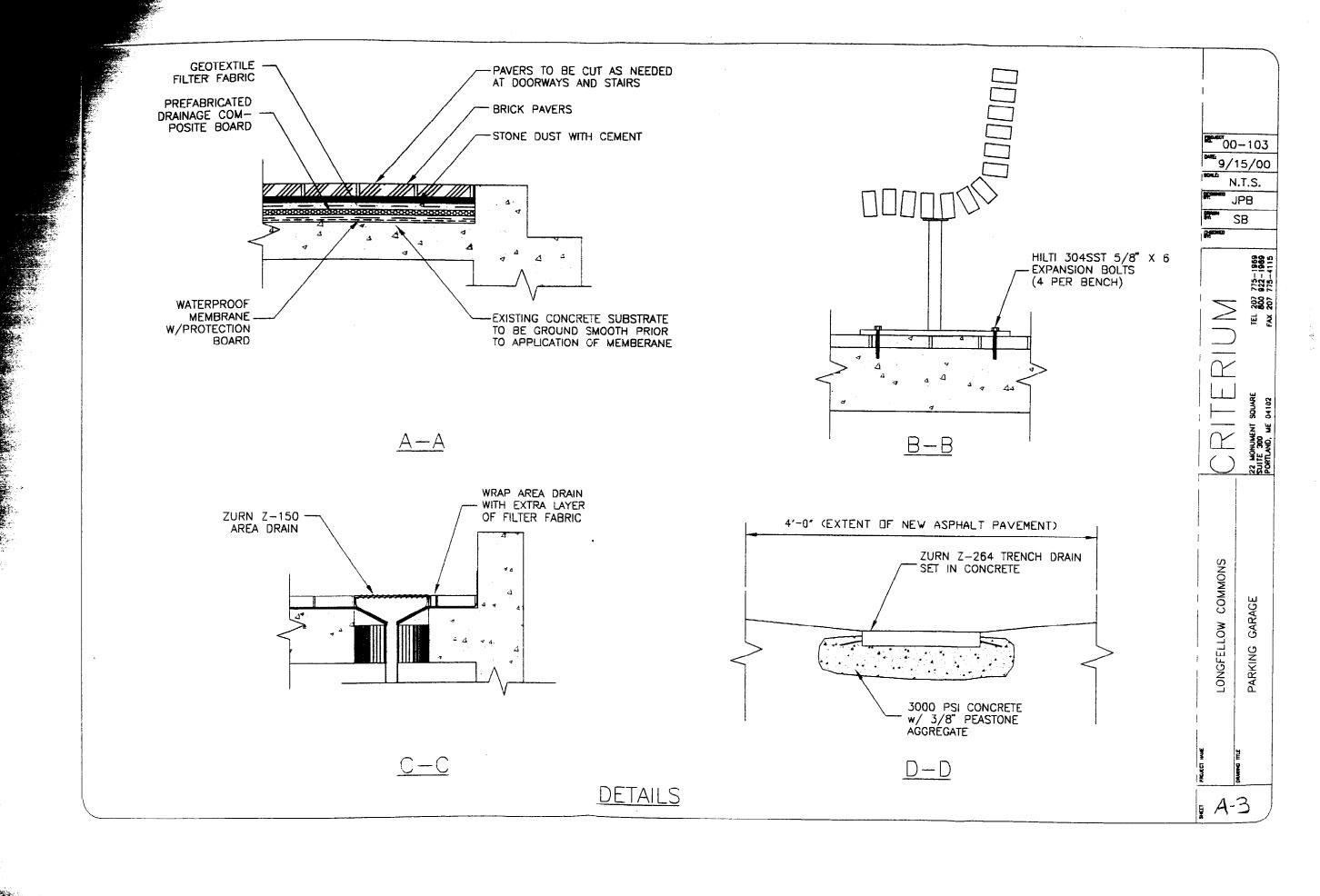
# NOTES

- GARAGE AREA (INCLUDING SOFFIT)
  TO BE PRESSURE WASHED PRIOR
  TO STRIPING
- RE-MARK PARKING SPACES WITH 4" WIDE TRAFFIC PAINT NO. 679 WHITE (PRATT & LAMBERT) OR APPROVED EQUAL
- NEW 4" DRAINAGE LINE TO STUB INTO MANHOLE AND REPAIRED WITH HYDRAULIC CEMENT



LOWER LEVEL PLAN VIEW

00-103 **\***9-14-00 N-T-SJPB SFB Commons gara Longfellow  $\Box$  $\sigma_0$ 





## CITY OF PORTLAND, MAINE

**Department of Building Inspections** 

4/4/2002
Received from KISC - Timothy Rich
Location of Work 206 State St.
Cost of Construction \$ 28, 510.00
Permit Fee \$ 226.00
Building (IL) Plumbing (I5) Electrical (I2) Site Plan (U2)
Other
CBL: 47-C-35
Check #: 650094 Total Collected \$ 226.00

# THIS IS NOT A PERMIT

No work is to be started until PERMIT CARD is actually posted upon the premises. Acceptance of fee is no guarantee that permit will be granted. PRESERVE THIS RECEIPT. In case permit cannot be granted the amount of the fee will be refunded upon return of the receipt less \$10.00 or 10% whichever is greater.

WHITE - Applicant's Copy YELLOW - Office Copy PINK - Permit Copy